

(12) UK Patent Application (19) GB (11) 2 086 313 A

(21) Application No 8130185

(22) Date of filing 6 Oct 1981

(30) Priority data

(31) 803283

(32) 3 Nov 1980

(33) Norway (NO)

(43) Application published

12 May 1982

(51) INT CL³

B63B 23/30

(52) Domestic classification

B7A 427 CA

(56) Documents cited

GB 489969

GB 480923

(58) Field of search

B7A

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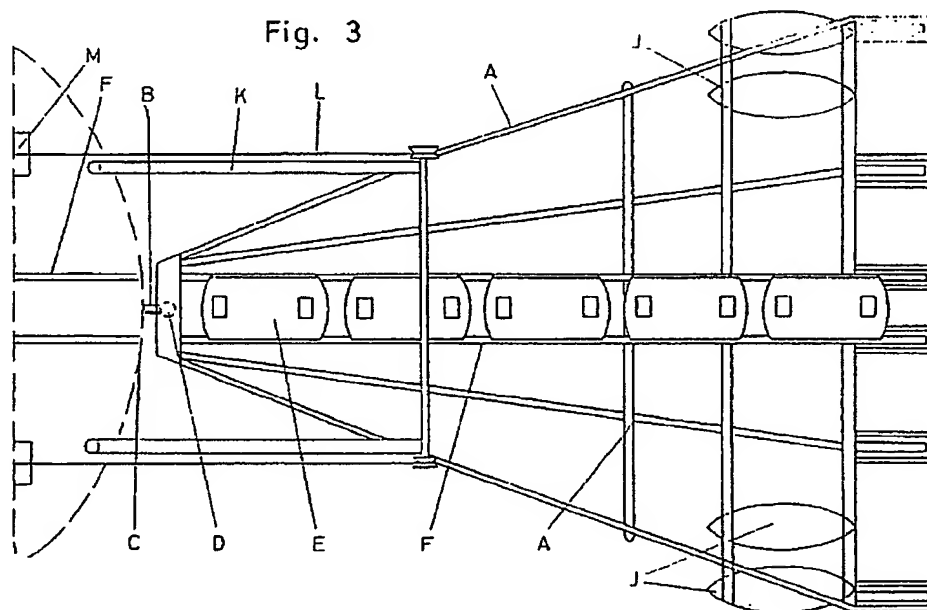
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(54) Launching Ramp for Lifeboats, Life Rafts and the Like

(57) A launching ramp (A) for lifeboats, life rafts and the like is hinged to a vessel (C) near the rail by means of a universal joint (D), and pontoons (J) are arranged on both sides of and a substantial distance from the centerline of the ramp to support buoyantly its free end. In this way the outer free end of the ramp (A)

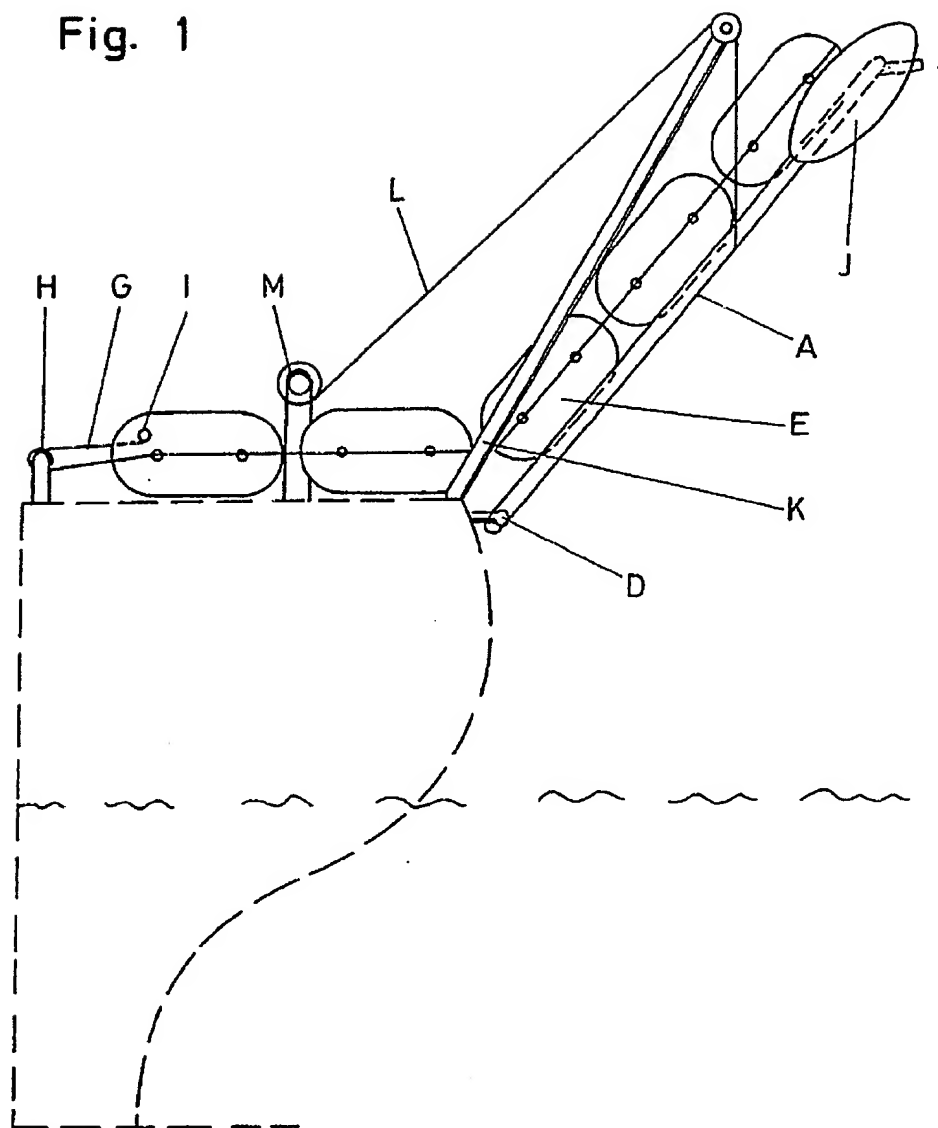
will move freely in response to wave action. In the launching position, the ramp (A) extends on a downward incline from the ship to the surface of the sea, and it is also adapted to be rotated into an upraised position. The ramp (A) may be provided with a slide or rollerway down which a plurality of lifeboats or rafts slip, the boats or rafts being linked together by a cable (G) which runs onto a winch I in the innermost craft (E).

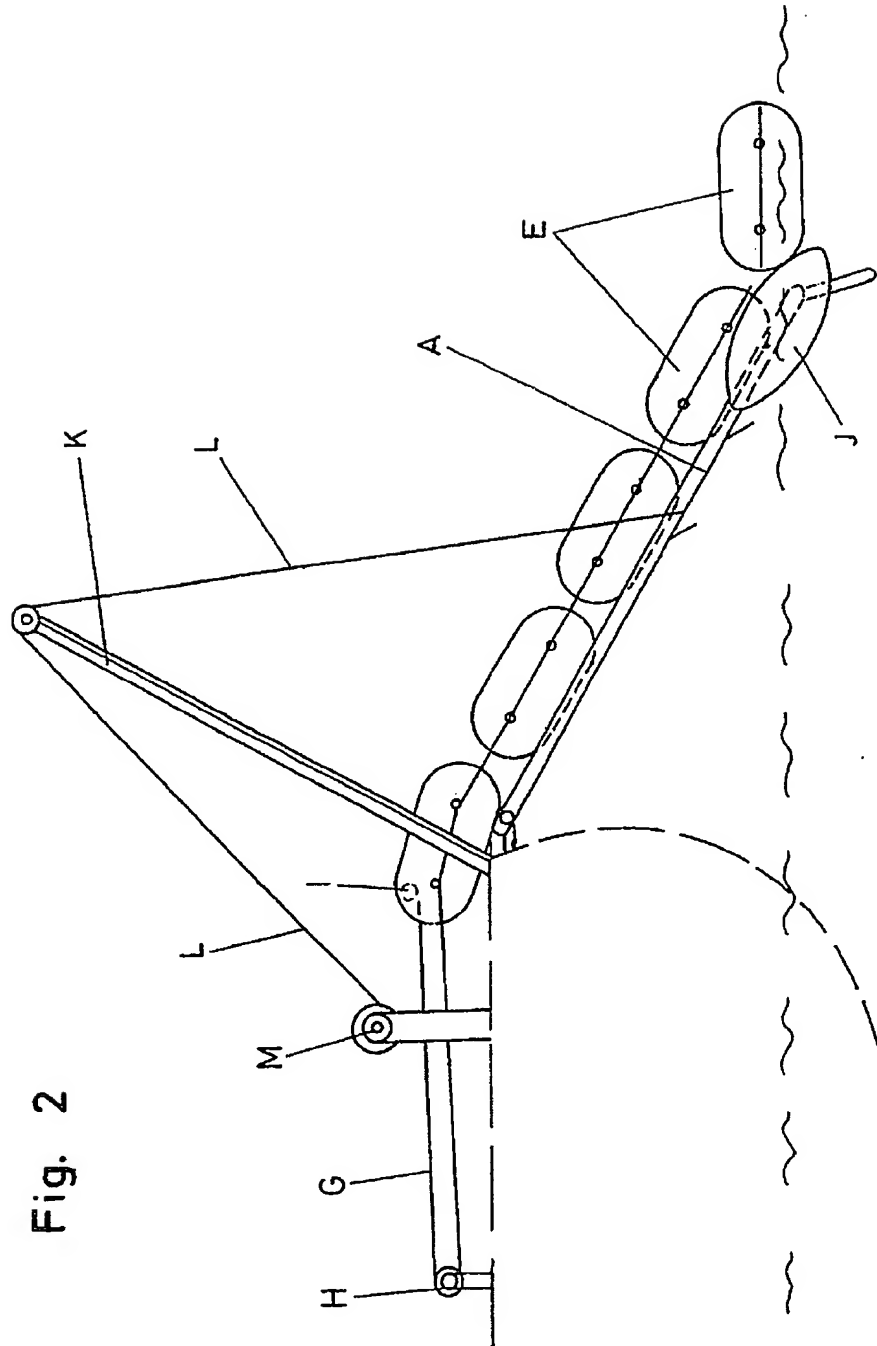
Fig. 3



GB 2 086 313 A

Fig. 1





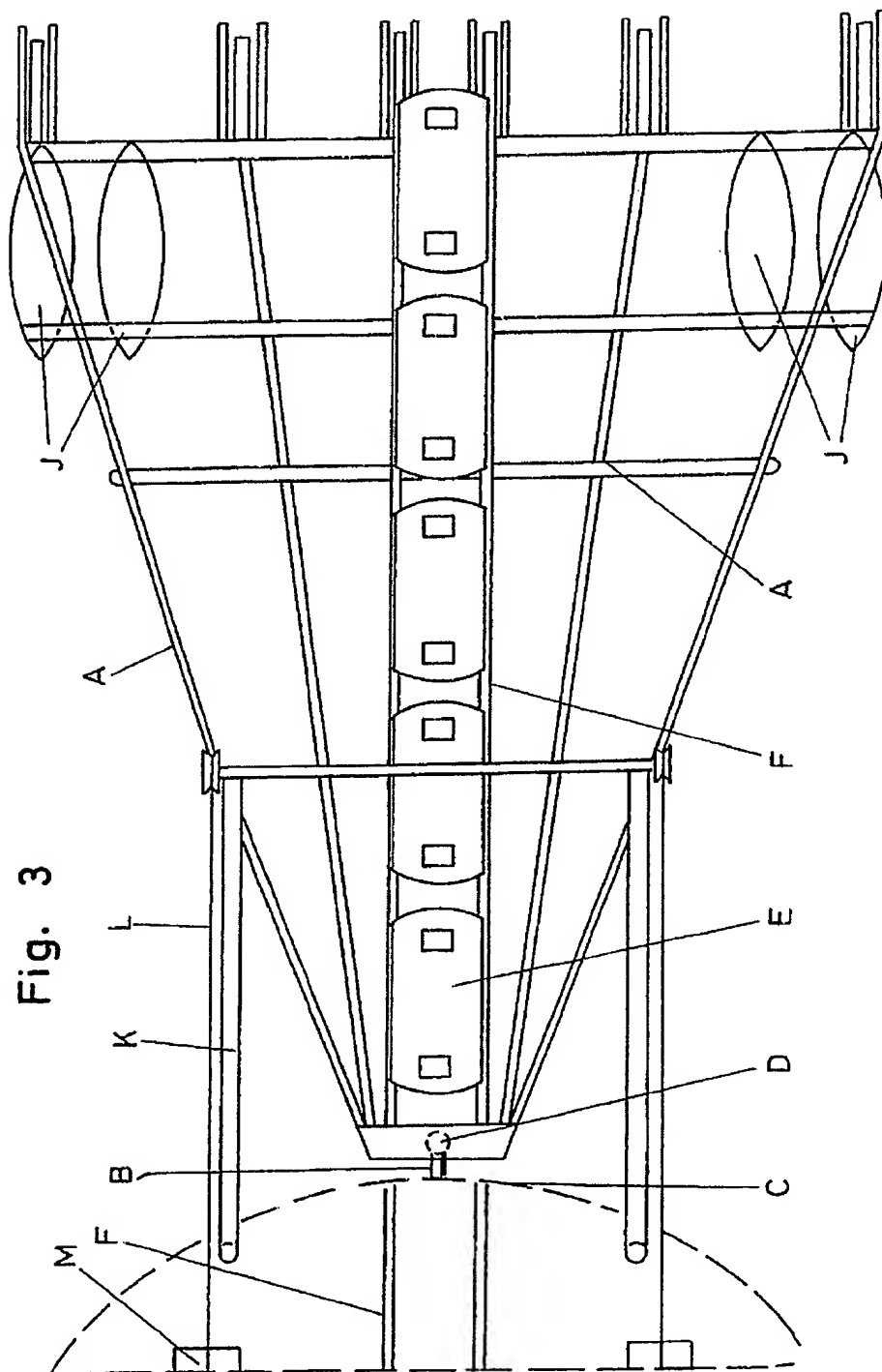


Fig. 3

SPECIFICATION **Launching Ramp for Lifeboats, Life Rafts and the Like**

The present invention relates to an
5 arrangement for a launching ramp for lifeboats,
life rafts and the like, which is hinged to a vessel
near its rail, which in the launching position
extends on a downward incline from the ship to
the surface of the sea and which is also adapted
10 to be rotated into an upraised position, and which
is provided with pontoons at the free end thereof.

A number of different launching devices for
lifeboats, life rafts and the like have been both
proposed and constructed in the past. Most of the
15 known devices work very well in theory, and also
work well in practice under favourable weather
conditions. However, one must keep in mind that
such launching devices, as a rule, are utilized in
extremely bad weather and under other difficult
20 conditions as well, perhaps with a fire or
explosion having occurred on board, and
moreover, that the time available to effect the
operation is usually very short. In addition to the
most conventional launching devices, such as
25 davits and cranes for lowering lifeboats, launching
ramps which can be let down from the ship are
also known, from which lifeboats or life rafts are
launched by sliding down the sloping ramp. From
U.S. Patent 1,130,569, for example, a ramp is
30 known which when in use slopes downwardly
from the ship rail to the sea and which may be
hoisted into an upraised position when the device
is not in use. At the outer, free end thereof, the
ramp is provided with pontoons intended to float
35 on the water. The ramp is hinged to the vessel
about an axis extending in the longitudinal
direction of the vessel, but is rigidly connected to
the vessel about an axis extending transversely of
the ship's longitudinal direction. When lifeboats,
40 life rafts or the like are being launched from such
a ramp under conditions with high waves, the
waves will wash crosswise over the launching
ramp, and there is a risk that the lifeboats or the
like may either be broken up or capsized. There is
45 also a risk that the people on board the lifeboat or
raft may be washed overboard.

The object of the present invention is to
eliminate the above drawbacks of previously
known launching ramps, and this is achieved in
50 accordance with the invention in that the hinge
connection between the ramp and the vessel
consists of a universal joint, and that the
pontoons are arranged on both sides of and a
substantial distance from the centerline of the
55 ramp.

In this manner, the outer, free end of the ramp,
which is the point of transfer from the ramp to the
sea surface, will be freely movable in relation to
the waves. Since the pontoons are placed at a
60 substantial distance from the ramp centerline, the
free end of the ramp will obtain adequate lift on
the waves so that high waves will not wash over
it to any significant degree.

In accordance with a preferred embodiment of

65 the invention, the distance from the ramp
centerline to the center of buoyancy of the
pontoons is at least twice the width of the lifeboat
or raft.

A further embodiment is characterized in that a
70 plurality of lifeboats or rafts are arranged linked
together on the ramp.

A practical embodiment of the invention is
characterized in that a known per se slide or
rollerway for the lifeboats or rafts is arranged on
75 the ramp, and that the ramp, in the launching
position, has such inclination relative to the
horizontal plane that the boats or rafts slide along
the launching path by their own weight.

The invention will be explained in greater detail
80 with reference to the accompanying drawings,
wherein

Figure 1 shows a launching ramp according to
the invention arranged at the stern of a vessel,
with the ramp in the upraised position.

85 Figure 2 shows the ramp with the lifeboats
rotated down toward the sea surface during
launching, the first lifeboat in the row already
resting on the surface of the water.

Figure 3 shows the ramp as seen from above,
90 with the lifeboats in a partially lowered position.

On the drawings, A designates the ramp which
is rotatably connected at a point B to a vessel, for
example, at the stern C. D designates a universal
joint, e.g., a ball joint between the ramp and
95 vessel, which enables the ramp to adjust freely to
the movements of the sea.

E designates lifeboats which are positioned on
a slipway F, which runs along the entire length of
the ramp and extends a distance onto the vessel.
100 All the lifeboats or life rafts are connected to each
other by means of a cable G, which passes in a
loop over a roll H on the vessel to a winch I on the
innermost lifeboat. J designates the floats at the
outer end of the ramp. With the aid of a rotatable
105 gantry consisting of two derricks K with an
intermediate stay at the outer end thereof, the
ramp can be raised and lowered by means of
cables L and winches M.

During launching of the lifeboats or rafts, the
110 ramp A is swung down from the upraised position
shown in Figure 1 into the launching position
shown in Figure 2 by slackening the cable L with
the winch M, causing the derricks K to pivot
downwardly. The lifeboats or rafts E may be
115 eased down along the slipway of the ramp by
slackening the cable G with the aid of the winch I
in the innermost boat.

Lowering of the ramp has been interrupted
when the ramp is in the horizontal position, and in
120 this position the lifeboats may be boarded. After
the ramp has been lowered into the position
shown in Figure 2, all of the lifeboats or rafts E
can be launched. The entire launching operation
can be carried out in very short time, since
125 lowering the ramp and launching the lifeboats or
rafts takes only a few minutes.

Claims

1. A launching ramp for lifeboats, life rafts or

the like, which is hinged to a vessel near the rail, which in the launching position extends on a downward incline from the ship to the surface of the sea and which is also adapted to be rotated into an upraised position, and which is provided with pontoons at the free end thereof, *characterized* in that the hinge connection between the ramp (A) and the vessel (C) consists of a universal joint (D), and that the pontoons (J) are arranged on both sides of and a substantial distance from the centerline of the ramp.

2. A launching ramp according to claim 1, *characterized* in that the distance from the ramp centerline to the center of buoyancy of the pontoons (J) is at least twice the width of the lifeboat or raft (E).

3. A launching ramp according to claims 1 or 2,

characterized in that a plurality of lifeboats or rafts (E) are arranged in a linked state on the ramp.

4. A launching ramp according to one or more of the preceding claims, *characterized* in that there is provided on the ramp (A) a known per se slide or rollerway (F) for the lifeboats or rafts (E), and that the ramp (A), in the launching position, has such inclination relative to the horizontal plane that the boats or rafts slide along said slipway by their own weight.

5. A launching ramp according to one or more of the preceding claims, *characterized* in that a launching and hauling winch (I) is provided in the innermost lifeboat (E).

6. A launching ramp substantially as hereinbefore described with reference to the accompanying drawings.

Printed for Her Majesty's Stationery Office by the Courier Press, Leamington Spa, 1982. Published by the Patent Office,
25 Southampton Buildings, London, WC2A 1AY, from which copies may be obtained